

HQS Update – Electrical Outlets

In 2010, the Department of Housing and Urban Development (HUD) issued PIH Notice 2010-10 (HA) to clarify Housing Quality Standards (HQS) requirements when evaluating electrical outlets during inspections. The Housing Authority of the County of San Diego is now following these guidelines with all HQS inspections.

Types of outlets:

Ungrounded Outlets

Older construction (pre-1975) housing will usually have ungrounded two-pronged outlets, which is an acceptable type of outlet under the HQS.

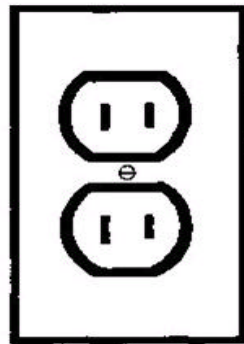


FIGURE 1 UNGROUNDED

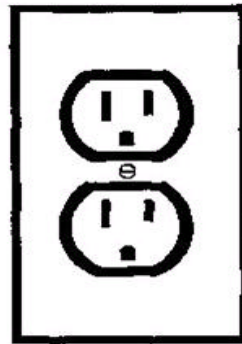


FIGURE 2 GROUNDED

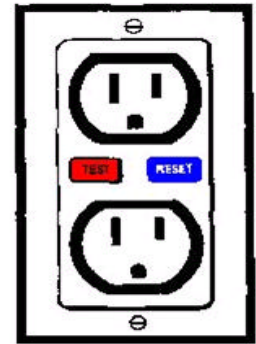


FIGURE 3 GFCI

(Figure 1) An owner does not need to upgrade the

electrical system of the unit (convert two-pronged outlets to three-pronged) in order for the unit to pass an HQS inspection.

Grounded Outlets

Newer construction housing will usually have three-pronged outlets, which are acceptable under HQS if the outlets are grounded. (Figure 2)

“Upgraded” Outlets

Many of the cords for today’s appliances contain three-pronged plugs, which can cause problems when an older home does not have three-pronged outlets for these grounded plugs. In the case of older homes, owners often replace two-pronged, ungrounded outlets with three-pronged, grounded type outlets in order to establish appropriate outlets for appliances that have cords with three-pronged plugs. However, in some cases, owners may replace two-pronged, ungrounded outlets with the three-pronged, grounded type outlets without the necessary rewiring that adds a ground wire to the newly installed, grounded type outlet. Three-pronged, grounded type outlets should not be substituted for ungrounded outlets unless (1) a ground wire is connected to the outlet, or (2) a Ground Fault Circuit Interrupter (GFCI) Breaker or outlet protects the outlet. (Figure 3, outlet option) Installing a new ground wire may require a licensed electrician to install a new wire to the circuit breaker box and may be prohibitively expensive. A more cost-effective method is to protect the outlet with a GFCI, which provides protection to the outlet. If the GFCI senses a difference in current flow between the hot and the neutral terminals, it shuts off the flow of current to the outlet.

GFCI breakers may also be used to protect the outlets.

An older construction house with a grounded outlet (Figure 2) would be an indication that the unit may have undergone some upgrading. In such cases, the Department recommends testing a sample of outlets in the unit to determine if three-pronged outlets are in proper operating condition, in addition to verifying the proper operating condition of the required number of outlets per room.

Three-pronged Outlets

A three-pronged outlet must meet one of the following three standards for the inspector to consider the outlet in “proper operating condition” as required by HQS:

1. The outlet is properly grounded.
2. A GFCI protects the three-pronged, ungrounded outlet. (a GFCI outlet does not need to be grounded)
3. The outlet complies with the applicable state or local building or inspection code.



The inspector will use an outlet tester to determine whether the outlet is properly grounded. Units with Outlets that are not properly grounded or protected will not pass the HQS inspection. A GFCI can be located at the outlet that is being tested or upstream on the circuit of the outlet. The inspector should “trip” all of the GFCIs in the unit; both at the outlet and in the circuit breaker box and determine if there is power to the ungrounded outlet. If the power to the outlet is off, then one of the GFCIs protects the outlet.

Occasionally, a GFCI may be located on the circuit breaker at the load center (circuit breaker box).

The image on the right depicts a GFCI breaker: the distinctive indicator is the “Test” button mounted on the breaker.

An inspector may want to “trip” the GFCI in order to identify that the power shuts off to any ungrounded outlet that is protected by the breaker. To “trip” the GFCI, the inspector will press the test button and the switch will move and shut off power to the circuit. This allows the inspector to verify that the outlet is GFCI- protected.



A GFCI is in proper operating condition if pressing the “TEST” button on the GFCI trips the circuit and shuts off power through the receptacle.